Federal Aviation Administration
National Aeronautical Navigation Products

PERFORMANCE WORK STATEMENT (PWS)
Instrument Flight Procedures ARINC Encoding Tool (IFP ARINC)
Requirements Gathering and Software Development

1.0   GENERAL

The Federal Aviation Administration (FAA), Aeronautical Navigation Products
(AeroNav Products) provides services to ensure the standard development,
evaluation, and certification of instrument flight procedures for civil and military
customers worldwide. The FAA's AeroNav Products designs and develops
Instrument Flight Procedures (IFP's), publishes aeronautical charts and digital
products for air carrier, military, general aviation pilots and others for use
throughout the United States and around the world.

2.0   SCOPE OF WORK

The Contractor shall be required to develop a new computer application to replace
the AeroNav Products' existing Aeronautical Radio, Inc. (ARINC) Specification
424 encoding computer application. This tool shall be capable of producing an
ARINC 424 ASCII file for all types of area navigation (RNAV) and non-area
navigation (commonly referred to as "conventional") terminal instrument flight
procedures types as well as Standard Terminal Arrival and Departure procedures,
and have the capability of outputting the associated FAA and DoD forms that
contain the procedure coding such as an FAA form 8260 -10.

The Contractor shall provide the tool in scheduled releases or modules by
procedure type in the following sequence; RNAV approaches, Instrument
Landing System (ILS) approaches, RNAV and Conventional departure
procedures (DP), RNAV and Conventional Standard Terminal Arrival (STAR)
and Conventional approaches. The FAA/DoD forms output functionality shall be
available in the first application release or module.

The Contractor shall ascertain and document the requirements necessary for the
creation of an automated system to convert and store procedural and aeronautical
data in ARINC 424 format, which shall be suitable for inclusion into the National
Flight Database (NFD) and FAA Flight Inspection aircraft Flight Management
Computers. The primary ARINC file output will be as a "Per Procedure Packet"
(P3) file. This file type contains all the procedural and support records associated
with a given terminal procedure. The Contractor shall also design the tool to

extract files from TARGETS or to import TARGETS generated output, to produce Standard Terminal Arrival (STAR) ARINC 424 records and provide basic validation and error reporting of output data.

The data sources to support this new system are available from a number of FAA databases (i.e., IFP, SIAP, Fix, AirNav, NASR, Air Traffic, etc.). Schemas for these databases will be provided by the FAA. The new system shall interface with these support databases to the maximum extent possible. In addition, the application will provide support for full manual entry of all required data.

The application shall be developed and designed to work behind (inside) the FAA network firewall. Any needed database solutions shall be Oracle solutions. A Service Oriented Architecture shall be used for communication with the existing FAA databases and the services shall be created by the Contractor.

3.0   TASKS

3.1   Hold Kick-Off Meeting

The Contractor shall host a kick-off meeting as soon as practical after contract award and no later than 30 after. The purpose of this meeting and follow-on discussions will be to define the following:
1. Review of contractor's project management approach
2. Initial objectives, project milestones, and priorities (Development Plan)
3. Contractor / Government organizational structure
4. Rules and processes for decision-making (Communications Plan)
5. Participants and their roles
6. Agree on structure for the JAD (JAD Program Plan)
   a. Frequency of JADs
   b. Number of JADs
   c. Ground Rules

3.2   Facilitate JAD Meetings

The Contractor shall lead and facilitate a Joint Applications Development team (JAD) and deliver the documentation and subsequent reports that describe and detail the requirements for the ARINC 424 coder. The team will be made up of FAA subject matter experts (SMEs) and FAA project support staff as well as the necessary facilitator, requirements experts and clerical support from the contractor. The Contractor shall be responsible for providing agendas, facilitating and mediating the meetings, taking notes, and distributing the meeting minutes following each meeting. Information gained from the JAD meetings shall serve as the primary input for creating the requirements package deliverables defined in section 16 below.

3.3   Hold Critical System Design Review(s)

The Contractor shall lead a critical systems requirements review meeting to obtain sign-off from the government JAD members for each of the deliverables defined in section 16 below. Advance copy of the deliverables should be made available for review sufficiently prior to the meeting to allow thorough review. A reasonable number of follow on meetings are permissible as needed to finalize document sign-off.

3.4   Create and Maintain Systems Development Life-Cycle Artifacts

The Contractor shall consolidate all input received from FAA subject matter experts (SMEs) and management personnel to create the systems development life-cycle (SDLC) deliverables defined in section 15 below. Effort must be taken to enforce traceability and logical consistency between documents. Requirements and design artifacts' creation, modification, and update shall be undertaken continuously throughout the project's phases following an iterative SDLC in response to the addition, refinement, and clarification of requirements discerned from SME input and review of SDLC artifacts themselves as well as review of working software modules.

3.5   Software Development/Build the ARINC Coder System

The Contractor shall design and build the ARINC coder system according to the requirements set out by FAA SMEs through the JAD or other communications and documented in the SDLC artifacts compiled from all requirements gathering activities. The on-going build process shall follow an iterative approach encompassing requirements as they are added, refined, or clarified through communication with FAA SMEs. The Contractor shall build the software in compliance with all FAA programming language, architecture, methodology, and security guidelines.

4.0   PLACE OF PERFORMANCE

The Contractor shall provide ARINC coding support services at their facility. Program Management, Software Development, Engineering and Over and Above Services will be provided to FAA from the Contractor Facility, or when requested by FAA, at the appropriate FAA facility.

5.0   TECHNICAL REPRESENTATIVES

Contracting Officer's Technical Representative (COTR)
AeroNav Products
Navigation Database Services Team Lead
Oklahoma City, OK 73169

Contracting Officer's Representative (COR)
AeroNav Products
Resource Planning and Management Support Team
Oklahoma City, OK 73169

6.0   DEFINITIONS and ACRONYMS

ARINC Specification 424, Navigation Data Base is an established aviation industry specification providing a standard format for coding aeronautical data and instrument flight procedures to be used by flight management systems (FMS).

National Flight Database (NFD) is a congressionally-mandated product that supports civil and military users of government sourced aeronautical navigation data created to the ARINC 424 specification. The NFD also supports the Air Traffic Organization (ATO) NexGen En Route Automation Modernization (ERAM) System. The ARINC 424 packets created as part of the instrument procedure design process are an integral part of the overall design, development and publication of FAA produced instrument flight procedures.

    AIP – Aeronautical Information Publications
    AIRNAV – AeroNav Products database of airport and navigational aid data
    AIRAC – Aeronautical Information Resources & Control
    AIXM – Aeronautical Information Exchange Model
    ARINC - Aeronautical Radio, Inc.
    ASCII – American Standard Code for Information Exchange
    ATC - Air Traffic Control
    ATO - Air Traffic Organization
    AVN - Aviation System Standards
    CO - Contracting Officer
    COPTER - Helicopter
    COR -Contracting Officer's Representative
    COTR - Contracting Officer's Technical Representative
    CRC – Cyclic Redundancy Check
    DP - Departure Procedure
    DME – Distance Measuring Equipment
    d-TPP - digital -Terminal Procedures Publication

ERAM – En Route Automation and Modernization
FAA - Federal Aviation Administration
FMS - Flight Management System
FRAC – FTI Remove Access Capability
FTP - File Transfer Protocol
GBAS – Ground Based Augmentation System
GLS – GNSS Landing System
GNSS - Global Navigation Satellite System
GPS – Global Positioning System
IAP - Instrument Approach Procedure
ILS - Instrument Landing System
JAD- Joint Applications Development Team
LAAS – Local Area Augmentation System
LDA - Localizer Directional Aid
LNAV – Lateral Navigation
VNAV – Vertical Navigation
LP - Localizer Performance
LPV – Localizer Performance with Vertical Guidance
LOC – Localizer
LOC BC – Localizer Back Course
LPV - Lateral Precision Vertical
MLS - Microwave Landing System
NASR - National Airspace System Resource
NDB – Non-Directional Beacon
NFD - National Flight Database
NFDD – National Flight Data Digest
P3 – Per Procedure Packet (ASCII file stand alone ARINC 424 coded
terminal procedure)
PWS - Performance Work Statement
NDB - Navigation Data Base or Non Directional Beacon
RNAV – Area Navigation
RNP - Required Navigation Performance
SIAP - Standard Instrument Approach Procedure
SDF - Simplified Directional Facility
SDLC – Systems Development Life-Cycle
SME – Subject Matter Expert
SOW - Statement of Work
SRS- Software Requirements Specification
STAR - Standard Terminal Arrival
TACAN - Tactical Air Navigation
TPP – Terminal Procedures Publications
VHF – Very High Frequency
VOR – VHF Omni-directional Radio Range
VORTAC – VHF Omni-directional Radio Range Tactical Air Navigation
WAAS – Wide Area Augmentation System
WBS – Work Breakdown Structure

7.0   GOVERNMENT FURNISHED PROPERTY (GFP) AND SERVICES

7.1   The Government will provide the Contractor information and access, as necessary, to complete the tasks contained in the PWS.

7.2   AeroNav Products will provide an FAA Project Manager and their contact information to support in the requirements gathering for a new system.

7.3   AeroNav Products will provide subject matter experts (SMEs) required to ensure the technical requirements are accurately stated and captured.

7.4   AeroNav Products will provide examples of the instrument approach, instrument departure, instrument arrival, and other aeronautical data necessary in support of the requirements gathering and application development.

7.5   AeroNav Products will ensure all necessary data schemas are provided to fulfill all data interface requirements of the contract.

7.6   AeroNav Products will provide the Contractor team FTI Remote Access Capability (FRAC) access, as needed, in support of contract requirements gathering.

7.7   AeroNav Products will provide the Contractor with FAA contact information, as needed, to support the contract.

7.7   AeroNav Products will provide a meeting room and SMEs for a maximum of every other week, for a full week, for the first three months, to gather all the requirements. This will be followed by a meeting room and SMEs for one week each every other month or as needed for the remainder of the contract to be determined by the CO and or the COTR.

8.0   CONTRACTOR FURNISHED PROPERTY (CFP) AND SERVICES

8.1   The Contractor shall provide qualified personnel, facilities (when performance is not at a government facility), related equipment, supplies, and services necessary for the successful performance of this PWS.

8.2   The Contractor shall bear the cost of any training and certifications, if or their personnel supporting the requirements of this contract.

8.3   The Contractor shall return all FRAC access tokens to the COTR at the conclusion of the contract.

8.4   The Contractor shall notify the Contracting Officer (CO) and CO's Technical Representative (COTR) before the close of business, the same day, if an employee is terminated or resigns.

8.5   FRAC access tokens shall be confiscated by the close of business, the same day, if a contractor employee is terminated or resigns. The FRAC access tokens shall be returned to the government by the next business day.

8.6   The Contractor shall provide scheduled deliveries to the Government based on a schedule coordinated with the FAA COTR.

8.7   The Contractor shall provide Project Management to support the requirements of the PWS.

8.8   The Contractor shall be responsible for obtaining a copy of each version of the ARINC 424 specification to be supported by the application.

9.0   TECHNICAL REQUIREMENTS

9.1   The system developed under in this contract shall be capable of generating and managing ARINC records for a minimum of 4 agreed upon versions of ARINC Specification 424 (i.e., currently the ARINC versions supported include 13, 15, 18 and 19).

The data types include, but are not limited to:

a)   Aeronautical Data:

Fixes

Navaids

Aerodromes

Heliports

Runways

Communications

b)   Procedural Data:

Instrument Approach Procedures (IAPs)

RNAV (GPS)

LPV, LNAV/VNAV, LP, and LNAV

RNAV (RNP)

GLS

GPS & GPS Overlay

ILS

LOC

LOC BC

LDA

SDF

MLS

VOR

VOR DME RNAV

VORTAC

NDB

NDB/DME

TACAN

COPTER versions of the above listed procedures

HIGH versions of the above listed procedures

Graphically-depicted departures (DPs)

Standard Terminal Arrival Routes (STARs)

RNAV Standard Terminal Arrival Routes (STARs)

Minimum Sector Altitudes

9.2   FAA aeronautical information (data) required to fulfill this contract is stored in several FAA databases. The Contractor shall determine the best method for accessing this data in support of the ARINC encoding tool. FAA web services exist for some data types. These web services are based upon and the latest accepted version of the Aeronautical Information Exchange Model (AIXM). The FAA desires that AIXM based web services be used to access the required aeronautical information but understands that this solution may not meet all the data needs required to fulfill the obligations of this contract.

9.3 The system shall provide the capability to manually enter aeronautical and procedural data.

9.4 The system shall provide the capability to generate the following ARINC Specification 424 records in support of the various procedure types described above and record types described below.

a) VHF Navaid (D) – This file contains details of all VOR, VOR/DME, VORTAC, DME, and TACAN stations within the geographical area of interest.

b) NDB Navaid (DB or PN) – This file contains details of all NDB navaids within the geographical area of interest. DB records refer to all Enroute on-airway and off-airway NDBs. PN records are for NDBs that only support one (1) aerodrome.

c) Waypoints (EA or PC) – This file contains details of all waypoints within the geographical area of interest. EA records refer to all Enroute on-airway and off-airway waypoints as well as waypoints that are utilized by two (2) or more aerodromes. PC records are for waypoints used by a single aerodrome only.

d) Holding Pattern (EP) – This file contains details of all holding recommended for inclusion on aeronautical charts.

e) Airports (PA) – This file contains airport information for all airports within the desired geographical reference area.

f) Airport SID/STAR/Approach (PD, PE, and PF) – Airport SIDs, STARs, and Approach procedures are contained in three separate groupings, but all use the same record format.

g) Runways (PG) – Runways contains detailed runway information for all airports within the desired geographical reference area.

h) Airport and Heliport Localizer and Glide Slope Records (PI) – This file contains a sequential listing of all localizers and glide slopes associated with those localizers.

i) Airport and Heliport Localizer Marker (PM) – The file contains details of all markers and locators associated with all types of localizers.

j) Airport Communications (PV) – This file contains details of all communications capabilities for airports within the geographical reference area.

k) Airport Minimum Sector Altitude (MSA) – This file contains details relating to available sector altitudes.

l) Airport and Heliport Microwave Landing System (MLS) – This file contains details of any MLS NAVAIDs associated with an airport.

m) Path Point (PP) – This file contains Path Point records for RNAV GPS/GLS approach procedures.

n) GNSS Landing System (GLS) (PT) – This record contains a sequential listing of all GLS approaches, including the slope, course, and reference path idents of the GLS approach.

o) Airport TAA (PK) – The TAA file contains details relating to TAA sectorization and sector altitudes.

p) Heliport (HA) – This file contains heliport information for all heliports within the desired geographical reference area.

q) Heliport Terminal Waypoint (HC) – This file contains all terminal waypoints and VFR waypoint within the desired geographical area.

r) Heliport SID/STAR/Approach (HD, HE, and HF) – Heliport SIDs, STARs, and Approach procedures are contained in three separate groups using a single record format.

s) Heliport MSA (HS) – This file contains details relating to available sector altitudes.

t) Heliport Communications (HV) – This file contains heliport communications information.

u) Heliport TAA (TAA) – The TAA file contains details relating to TAA sectorization and sector altitudes.

v) This list shall not be considered all inclusive of required record types.

10.0 SYSTEM FUNCTIONAL REQUIREMENTS

The following system functional requirements are a limited set of expected application capabilities. The majority of application functional requirements are expected to be gathered under the terms of this contract.

10.1 The system shall provide the capability to produce ARINC encoding on-demand. The request may be initiated by a user or another system.

10.2 The system shall provide a method to manually enter record information for all of the identified record types. The intent is to provide the capability to manually enter procedure data for testing, prototyping, or other efforts.

10.3 The system shall provide the capability to generate an ARINC encoded ASCII file. The file extension shall be '.ari'.

10.4 The ARINC encoded file shall contain both procedure and support records applicable to the procedure type.

10.5 The system shall ensure the use of the version of data (aeronautical and procedure) which is/was/will be in effect for a given chart publication date (AIRAC Cycle).

10.6 The user shall have the option to generate ARINC records and reports/forms based on a given chart publication date (AIRAC Cycle).

10.7 The system shall provide the capability to produce an .ari ASCII file of the ARINC packet, to include the creation of a Header Record.

10.8 The system shall provide the capability to produce an FAA ARINC form approved for all (including the Military) procedures designed and developed by AeroNav Products. The forms/reports shall contain all ARINC 424 record types applicable to the type of procedure developed.

10.9 The system shall provide the capability to produce a Flight Inspection Summary form published on FAA Form approved for all, (including the Military), for all procedures designed and developed by AeroNav Products. The forms/reports shall contain all ARINC 424 record types applicable to the type of procedure developed.

10.10 The system shall include functionality to provide a complete ARINC package, which consists of the ASCII P3 file, ASCII Flight Inspection P3 file, appropriate FAA ARINC Forms and Flight Inspection Summary forms and, if appropriate, an error report.

10.11 The Contractor will gather all existing FAA coder tool information and utilize as much information as reasonably possible for the requirements for the new tool.

10.12 The system shall provide for data validation and error reporting. Such validation and error reporting shall cover gross errors such as inappropriate range of values, leg type sequencing not to specification, etc. The error reporting shall not stop tool output but rather supplement it if errors are encountered.

10.13 The system shall operate in a Windows environment and must be accessible via the FAA Intranet.

11.0   ENGINEERING SERVICES

11.1 Engineering Services are necessary in support of evolving requirements that impact the usefulness of the NFD. Contractor support that does not fall into one of the Fixed Price CLINS, but is required in support of the ARINC coding tool, shall be provided under Engineering Services. Examples include, but are not limited to:

11.2 The Contractor may be asked to provide recommended solutions to AeroNav Products' questions/concerns.

11.3 The Contractor may be asked to provide expert advice on legacy, current, and future ARINC 424-XX Navigation Database and/or NDB-X (ARINC 829) issues, standards, and industry practices to include development and preparation of documents to be submitted to the industry ARINC NDB Working Group for consideration.

11.4 The Contractor may be asked to enhance the system to support new versions of ARINC 424.

11.5 The Contractor may be asked to perform studies to determine the scope and impact of future requirements.

11.6 The Contractor may be asked to investigate system compatibility with newer or upcoming versions of Windows and all supported Internet browsers.

12.0 OVER & ABOVE SERVICES

12.1 Over and Above Services are those services required to support the generation/production of the NFD that are unknown at this time, not explicitly defined, but are necessary in support of the new and evolving requirements and/or may impact the usefulness of the NFD. Examples of Over and Above Services include, but are not limited to:

  1. New system development.

  2. New/amended procedure criteria which affects ARINC rules.

13.0 CONTRACTOR QUALIFICATIONS

13.1 The Contractor shall have sufficient expertise in the creation or use of ARINC 424 data as well as aeronautical information to work collaboratively with the FAA in the development of the application. Thus, technical writing skills and skill developing computer applications/software development alone without ARINC 424 and

aeronautical information expertise will not meet the minimum technical requirements of employees supporting this contract. Included in the definition of qualified personnel is expertise and experience creating or using the ARINC 424 records for the procedure types listed in Section 8.

13.2   The Contractor shall submit for FAA approval, resumes of all Contractor personnel tasked with the support of this contract. The government reserves the right to exclude Contractor personnel from work under this contract that do not meet the government's qualifications.

13.3   The Contractor shall have expertise in the running of requirements gathering Joint Application Development teams (JAD).

13.4   The Contractor shall have project management expertise for the planning, execution, monitoring and controlling, and closing of project work. Expertise in managing a project pursuant to a structured project plan, including a work breakdown structure, project schedule, and scheduling network diagram to enable critical path analysis on the basis of cost, schedule, and scope components of project work is essential and required by this contract.

13.5   The Contractor shall have the expertise to choose and implement a computer solution, whether through leveraging a COTS product, writing custom source code, or a combination of the two that is compliant to FAA security and software development standards and fulfills the requirements developed through the software requirements and development methodologies applied to the task.

14.0   TRAVEL

14.1   The FAA CO or COTR may request performance from the contract personnel resulting in travel outside the metropolitan area of the Contractor's facility. All travel requests shall be approved by the COTR in advance of travel.

14.2   All travel expenses will be paid according to FAA Travel Regulations.

15.0   REPORTS

15.1   The Contractor shall submit monthly status reports, no later than five (5) business days after the close of the month, to the CO and COTR to include the following information:

Progress during the reporting period.

Action item list to include status.

Schedule status.

Risks and mitigation strategies.

Description of work planned for the upcoming reporting period.

Reports may be submitted electronically.

16.0 DELIVERABLES

16.1 Project Plan

The first deliverable shall be a work plan and milestones. The work plan shall identify the required total number of Contractor hours, the total number of Contractor personnel, Contractor travel cost estimates, and dates of meetings. The work plan shall be subject to FAA review and approval.

16.2 Work Breakdown Structure (WBS) / Scheduling Network Diagram

A WBS organizes and defines the total scope of the project. The WBS subdivides the project work into smaller, more manageable pieces of work, with each descending level of the WBS representing an increasingly detailed definition of the project work. The WBS will serve to define the work required to complete the project. The work packages shall be scheduled through a project management network diagram to determine possible parallel tasks and project critical path.

16.3 Vision Document

This artifact defines the stakeholders' view of the product to be developed, specified in terms of the stakeholders' key needs and features. It contains an outline of the envisioned core requirements, so it provides a contractual basis for the more detailed technical requirements. It provides a high-level contractual basis for the more detailed technical requirements that are visible to the stakeholders. It captures the "essence" of the envisaged solution in the form of high-level features and design constraints that give the reader an overview of the system to be developed from a behavioral requirements perspective. It provides input to the project-approval process. It communicates the fundamental "why and what" for the project and is a gauge against which all future decisions should be validated. The vision for this project should contain high level features that are traceable to software requirements defined in the SRS.

16.4 Software Requirements Specification (SRS)

The Software Requirements Specification (SRS) shall present requirements detailed by the functionality, usability, reliability, performance, and supportability (FURPS) aspects of user requirements. Requirements generally should be organized with traceability back to the high level features defined in the Vision, but alternate organization is also acceptable where appropriate. Also detailed in the SRS should be the system interfaces from the perspective of the user, hardware, software, and communications. Security requirements shall also be portrayed as extensions of security features defined in the Vision.

16.5   Use Case Model

This artifact is a model of the system's intended functions and its environment, and serves as a contract between the customer and the developers. It is used as an essential input to activities in analysis, design, and test. The Use Case model must detail all system actors as well as their interfaces to the system in the fulfillment of all user requirements detailed in the SRS. The Use Case must detail preconditions, basic and alternate flows, and post-conditions for each system interaction. Each use case must show traceability to one or many requirements from the SRS.

16.6   Functioning ARINC Coder Software

The primary deliverable is the working ARINC coding system. The system development and rollout is expected to be done in iterations to be agreed upon by the FAA and contractor project managers.

16.7   System Source Code

The FAA shall have exclusive ownership and rights to the source code.

16.8   Software Design and Source Code Documentation

The Contractor shall provide a full set of Unified Modeling Language (UML) object oriented analysis and design diagrams including class diagrams, sequence diagrams, communication diagrams, state diagrams, activity diagrams, package diagrams, etc. The UML diagrams needed to convey software structure and design should be chosen by the contractor and with government approval as applicable to the complexity of the system. The UML model shall be sufficient to guide unfamiliar maintenance programmers to be able to maintain and enhance the software source code.

16.9   User Manual

A User manual is required for each iteration/module of the system.

16.10   Operations Manual

An Operations Manual suitable for Information Technology support the system such as system installation and maintenance is required for each iteration/module.

16.11 Operator and User training

Operator and User training to support a "train the trainer" whereby the contractor trains our training staff who then provides training to users and operators.

17.0 DELIVERABLES CRITERIA

17.1 The Vision, SRD, Use Cases, and WBS shall define the performance measures of a working system. The technical requirements shall be comprehensive, complete and sufficient to be used as the primary documentation needed to develop a functioning system. Government adjustments may be made to bring the draft technical requirements into compliance with applicable government needs.

17.2 The documentation shall be delivered in Microsoft Word format.

17.3 The FAA requires delivery of the source code for each iteration/module.

18.0 MILESTONES

18.1 The Contractor shall hold a kick-off meeting no later than 30 days after contract award.

18.2 A complete set of requirements documents defining the requirements for the new ARINC coding computer application shall be delivered to the FAA within 6 months of contract award. It is understood that modification, addition, and clarification of requirements shall be managed and applied to these documents in an iterative cycle as execution of the project begins, but this initial 6 month delivery shall be complete for the intended implementation of the system and have no known omissions.

18.3 A functioning first module of the ARINC coding system supporting RNAV procedures shall be delivered to the FAA within 1 year of contract award. Follow on modules shall be delivered every two months or sooner thereafter with a complete system supporting all procedure types delivered within 1 year and 6 months after contract award.

19.0 GOVERNMENT ACCEPTANCE

19.1   The Government reserves the right of final approval for the technical, functional, and operational requirements compliance of the requirements documents, system source code, working program, and other deliverables described here.

19.2   The Government reserves the right of final approval for all documentation produced relating to the requirements gathered.

19.3   The Government reserves the right of final approval and acceptance of the system and all modules of the system.